

Listing of All Claims Including Current Amendments

1-21. (cancelled).

22. (currently amended) A system for regulating the supply of power to a vehicle's brake system, comprising:

an engine;

a supply device driven by said engine for supplying an agency;

a motor driven by the agency supplied by said supply device;

a brake power source driven by said motor;

a brake system powered by said brake power source; and

a controller in communication with said supply device, said controller having at least one input for receiving signals containing information about the ~~vehicle~~ the brake system;

wherein said controller determines the rate at which to cause said supply device to supply the agency to said motor based at least in part on the received information about the brake system, thereby causing said motor to drive said brake power source at a desired rate.

23. (withdrawn) The system as claimed in claim 22, wherein:

said supply device comprises a generator for supplying electricity; and

said motor comprises an electric motor driven by the electricity.

24. (original) The system as claimed in 22, wherein:

said supply device comprises a hydraulic pump for supplying fluid; and

said motor comprises a hydraulic motor driven by the fluid.

25. (original) The system as claimed in claim 24, further comprising a reservoir for receiving fluid from said motor and from which said pump receives the fluid.

26-41. (cancelled).

42. (currently amended) The system as claimed in claim 22, wherein ~~the at least one input comprises~~ said controller further includes an input for receiving information reflecting the revolutions per minute of said engine's crankshaft.

43. (currently amended) The system as claimed in claim 22, wherein ~~the at least one input comprises~~ said controller further includes an input for receiving information reflecting throttle position.

44. (currently amended) The system as claimed in claim 22, wherein ~~the at least one input comprises~~ said controller further includes an input for receiving information reflecting the rate of rotation of at least one of the wheels.

45. (previously presented) The system as claimed in claim 22, wherein the at least one input comprises an input for receiving information reflecting air pressure.

46. (withdrawn – currently amended) The system as claimed in claim 22, wherein ~~the at least one input comprises~~ said controller further includes an input for receiving information reflecting voltage.

47. (previously presented) The system as claimed in claim 22, wherein the at least one input comprises an input for receiving information reflecting temperature in an air dryer.

48. (currently amended) The system as claimed in claim 22, wherein ~~the at least one input comprises~~ said controller further includes an input for receiving information reflecting the speed of said motor.

49. (previously presented) The system as claimed in claim 22, wherein said controller is an electronic control unit.

50. (previously presented) The system as claimed in claim 22, wherein said brake power source is a source of pressurized fluid.

51. (previously presented) The system as claimed in claim 50, wherein said source of pressurized fluid is an air compressor.

52. (previously presented) The system as claimed in claim 51, wherein said air compressor is a swash plate compressor.

53. (previously presented) The system as claimed in claim 52, wherein said compressor comprises:

a cylinder block having at least one piston channel therein;

a swash plate housing mounted adjacent to said cylinder block;

a shaft disposed in said swash plate housing and cylinder block;

a swash plate mounted on said shaft;

at least one piston coupled to said swash plate and disposed in said at least one piston channel and slidable therein; and

an actuator contacting said swash plate, such that said actuator, in a first position, exerts a force on said swash plate appropriate to retain said swash plate in a position perpendicular to said drive shaft, such that said at least one piston remains idle,

and, in a second position, exerts a force on said swash plate appropriate to pivot said swash plate, thereby causing reciprocal motion of said at least one piston when said actuator rotates.

54. (previously presented) The system as claimed in claim 50, wherein said brake system comprises:

- a reservoir for receiving the pressurized fluid from said source of pressurized fluid;
- a braking mechanism;
- a valve connecting said reservoir to said braking mechanism; and
- a valve actuator connected to said valve for governing the flow of the pressurized fluid from said reservoir to said braking mechanism.

55. (previously presented) The system as claimed in claim 54, wherein the vehicle includes a rotating surface and said braking mechanism comprises:

- a contact device for contacting the rotating surface and thereby creating friction;
- and
- a contact device actuator for causing said contact device to contact the rotating surface.

56-57. (cancelled).

58. (previously presented) The system as claimed in claim 55, wherein said contact device comprises a brake shoe.

59. (previously presented) The system as claimed in claim 55, wherein said contact device actuator comprises a piston.

60. (previously presented) The system as claimed in claim 55, wherein said contact device actuator comprises a spring.

61. (withdrawn) The system as claimed in claim 22, wherein said brake power source is a source of electricity.

62. (withdrawn) The system as claimed in claim 61, wherein said brake power source is an electric generator.

63. (withdrawn) The system as claimed in claim 61, wherein said brake system comprises:

- a braking mechanism;

- a switch connecting said source of electricity to said braking mechanism; and

- a switch actuator connected to said switch for governing the flow of the electricity from said source of electricity to said braking mechanism.

64. (withdrawn) The system as claimed in claim 63, wherein the vehicle includes a rotating surface and said braking mechanism comprises a contact device for contacting the rotating surface and thereby creating friction.

65. (withdrawn) The system as claim in claim 64, wherein said contact device comprises a fixed caliper.

66. (withdrawn) The system as claimed in claim 64, wherein said contact device comprises a floating caliper.

67. (withdrawn) The system as claimed in claim 64, wherein said contact device comprises a brake shoe.

68. (currently amended) A system for regulating the supply of power to a vehicle's brake system, comprising:

an engine;

an intermediary device driven by said engine, said device comprising

a hydraulic pump driven by said engine for supplying fluid; and

a hydraulic motor driven by the fluid supplied by said pump;

a reservoir for receiving fluid from said motor and from which said pump receives the fluid;

a brake power source driven by said intermediary device;

a brake system powered by said brake power source; and

a controller in communication with said intermediary device, said controller having at least one input for receiving signals containing information about the brake system, said controller, in response to a minimum engine speed, causing said intermediary device to drive said brake power source at a desired rate based at least in part on the received information about the brake system.